

US EPA ARCHIVE DOCUMENT

Northeast [ (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	-1.395
1902	-1.14
1903	-1.194
1904	-3.917
1905	-2.152
1906	-0.748
1907	-2.863
1908	-0.502
1909	-1.217
1910	-1.025
1911	-0.339
1912	-1.934
1913	0.786
1914	-2.197
1915	-0.532
1916	-1.505
1917	-3.845
1918	-1.43
1919	-0.243
1920	-1.702
1921	1.417
1922	-0.376
1923	-1.69
1924	-2.486
1925	-1.168
1926	-3.169
1927	-0.428
1928	-0.873
1929	-0.888
1930	0.104
1931	1.455
1932	0.408
1933	0.004

1934	-1.311
1935	-1.443
1936	-0.978
1937	0.162
1938	0.541
1939	-0.559
1940	-2.538
1941	0.085
1942	-0.066
1943	-1.477
1944	-0.275
1945	-0.357
1946	0.577
1947	-0.279
1948	-0.474
1949	2.011
1950	-0.652
1951	0.169
1952	0.882
1953	2.043
1954	0.065
1955	0.231
1956	-0.97
1957	0.481
1958	-1.729
1959	0.545
1960	-0.573
1961	-0.224
1962	-1.588
1963	-1.504
1964	-0.293
1965	-1.07
1966	-0.692
1967	-1.29
1968	-0.92
1969	-0.58
1970	-0.674

1971	-0.473
1972	-1.635
1973	1.389
1974	-0.547
1975	0.476
1976	-1.375
1977	-0.346
1978	-1.841
1979	-0.154
1980	-1.097
1981	-0.202
1982	-0.632
1983	0.65
1984	0.225
1985	-0.18
1986	-0.02
1987	0.445
1988	-0.181
1989	-1.128
1990	2.113
1991	1.892
1992	-1.024
1993	-0.479
1994	-0.35
1995	0.255
1996	-0.386
1997	-0.572
1998	3.089
1999	2.084
2000	0.003
2001	1.688
2002	1.687
2003	-0.484
2004	0.201
2005	1.084
2006	2.659
2007	0.699

2008 0.881

Southeast (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	-1.82
1902	0.003
1903	-0.906
1904	-1.282
1905	-0.536
1906	0.034
1907	0.071
1908	0.398
1909	0.111
1910	-0.937
1911	1.606
1912	-0.577
1913	0.597
1914	-0.576
1915	-0.208
1916	0.122
1917	-1.559
1918	0.095
1919	0.776
1920	-1.175
1921	1.915
1922	1.278
1923	0.211
1924	-1.132
1925	1.087
1926	-0.411
1927	1.296
1928	-0.692
1929	0.167
1930	-0.211
1931	0.885
1932	1.232
1933	1.597

1934	0.142
1935	0.117
1936	0.255
1937	-0.047
1938	0.96
1939	0.923
1940	-1.714
1941	0.376
1942	-0.192
1943	-0.115
1944	0.14
1945	0.748
1946	1.13
1947	-0.416
1948	0.686
1949	1.532
1950	0.152
1951	0.362
1952	0.555
1953	0.977
1954	0.633
1955	0.118
1956	0.344
1957	0.751
1958	-1.624
1959	0.311
1960	-1.269
1961	-0.629
1962	-0.541
1963	-1.474
1964	-0.518
1965	-0.159
1966	-1.499
1967	-0.959
1968	-1.568
1969	-1.599
1970	-0.525

1971	-0.077
1972	-0.09
1973	0.183
1974	0.423
1975	0.486
1976	-1.59
1977	-0.45
1978	-0.983
1979	-1.026
1980	-0.524
1981	-1.168
1982	0.356
1983	-1.209
1984	-0.134
1985	0.361
1986	1.209
1987	-0.138
1988	-1.001
1989	-0.193
1990	2.224
1991	1.371
1992	-0.569
1993	-0.107
1994	0.43
1995	0.017
1996	-0.798
1997	-0.211
1998	2.203
1999	0.997
2000	0.008
2001	0.572
2002	1.031
2003	-0.002
2004	0.591
2005	0.515
2006	1.134
2007	1.523

2008 0.318

Central [2.5 (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	-0.677
1902	-0.452
1903	-1.041
1904	-1.937
1905	-1.032
1906	0.036
1907	-0.662
1908	0.929
1909	-0.046
1910	-0.679
1911	1.586
1912	-1.754
1913	1.21
1914	0.096
1915	-0.452
1916	-0.255
1917	-2.937
1918	0.042
1919	0.672
1920	-0.964
1921	3.153
1922	1.396
1923	0.109
1924	-2.084
1925	0.453
1926	-0.965
1927	0.69
1928	-0.488
1929	-1.184
1930	0.697
1931	2.563
1932	0.716
1933	1.863

1934	1.246
1935	-0.124
1936	0.401
1937	-0.737
1938	2.168
1939	1.533
1940	-1.506
1941	1.439
1942	0.085
1943	-0.403
1944	0.547
1945	-0.489
1946	1.88
1947	-0.484
1948	0.063
1949	1.252
1950	-1.128
1951	-0.912
1952	0.982
1953	1.863
1954	1.764
1955	0.613
1956	0.799
1957	0.383
1958	-1.865
1959	0.357
1960	-1.453
1961	-0.768
1962	-0.713
1963	-1.231
1964	0.4
1965	0.226
1966	-1.312
1967	-1.017
1968	-1.013
1969	-1.266
1970	-0.327

1971	0.21
1972	-0.929
1973	1.138
1974	0.008
1975	0.398
1976	-1.503
1977	-0.266
1978	-1.997
1979	-2.021
1980	-0.481
1981	-0.464
1982	-0.547
1983	-0.163
1984	-0.058
1985	-0.68
1986	1.133
1987	1.588
1988	-0.191
1989	-1.178
1990	1.863
1991	1.984
1992	-0.177
1993	-0.702
1994	0.101
1995	-0.123
1996	-1.278
1997	-0.785
1998	3.035
1999	1.754
2000	0.33
2001	1.372
2002	1.389
2003	-0.156
2004	0.765
2005	1.487
2006	1.9
2007	1.899

2008 -0.445

South [2.5] (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	-0.287
1902	-0.164
1903	-2.031
1904	-0.336
1905	-1.62
1906	-0.998
1907	0.52
1908	0.325
1909	0.291
1910	0.426
1911	1.249
1912	-1.854
1913	-0.738
1914	-0.462
1915	-0.935
1916	0.044
1917	-1.3
1918	-0.055
1919	-1.007
1920	-1.009
1921	2.046
1922	0.663
1923	-0.157
1924	-1.315
1925	0.843
1926	-0.581
1927	1.181
1928	-0.319
1929	-1.059
1930	-0.228
1931	0.688
1932	-0.374
1933	2.092

1934	1.907
1935	0.334
1936	0.093
1937	-0.346
1938	1.655
1939	1.476
1940	-1.328
1941	0.144
1942	-0.428
1943	0.262
1944	0.131
1945	0.078
1946	1.427
1947	-0.35
1948	-0.067
1949	0.054
1950	0.201
1951	0.056
1952	0.507
1953	1.338
1954	2.282
1955	0.581
1956	1.362
1957	-0.049
1958	-1.201
1959	-0.688
1960	-1.187
1961	-1.253
1962	0.325
1963	0.584
1964	0.177
1965	0.445
1966	-1.054
1967	-0.102
1968	-1.469
1969	-0.52
1970	-0.689

1971	0.151
1972	-0.246
1973	-0.465
1974	-0.035
1975	-0.65
1976	-1.412
1977	0.622
1978	-1.113
1979	-1.907
1980	0.381
1981	0.467
1982	-0.192
1983	-1.417
1984	0.02
1985	-0.558
1986	1.159
1987	-0.08
1988	-0.254
1989	-0.845
1990	1.229
1991	0.574
1992	-0.267
1993	-1.026
1994	0.586
1995	0.256
1996	-0.014
1997	-0.591
1998	2.399
1999	1.901
2000	1.328
2001	0.987
2002	0.387
2003	0.509
2004	0.693
2005	1.382
2006	2.319
2007	0.604

2008 0.272

## East North Central [2.5x3.5-degree box]

annual  
anomaly  
year (deg F)

1901	-0.695
1902	-0.767
1903	-2.162
1904	-3.5
1905	-1.732
1906	-0.428
1907	-2.665
1908	0.378
1909	-1.486
1910	-0.164
1911	-0.215
1912	-2.834
1913	-0.109
1914	-0.678
1915	-0.871
1916	-2.417
1917	-4.689
1918	-0.526
1919	-0.729
1920	-1.116
1921	2.417
1922	0.431
1923	-0.538
1924	-3.02
1925	-0.891
1926	-2.057
1927	-1.22
1928	-0.446
1929	-2.813
1930	0.555
1931	3.948
1932	-0.735
1933	0.349

1934	0.639
1935	-1.191
1936	-1.963
1937	-1.682
1938	1.226
1939	0.935
1940	-1.33
1941	1.643
1942	-0.042
1943	-1.558
1944	0.605
1945	-1.516
1946	0.688
1947	-0.629
1948	-0.366
1949	0.456
1950	-3.3
1951	-2.885
1952	0.428
1953	1.357
1954	0.483
1955	-0.012
1956	-0.585
1957	-0.532
1958	-0.674
1959	-0.715
1960	-1.079
1961	-0.151
1962	-1.135
1963	-0.271
1964	0.367
1965	-1.697
1966	-1.489
1967	-1.552
1968	-0.044
1969	-1.149
1970	-1.002

1971	-0.626
1972	-2.676
1973	1.38
1974	-0.528
1975	-0.243
1976	-0.699
1977	0.332
1978	-1.868
1979	-2.521
1980	-0.366
1981	1.035
1982	-1.467
1983	0.407
1984	0.323
1985	-1.513
1986	0.681
1987	3.674
1988	0.715
1989	-1.488
1990	1.702
1991	1.108
1992	-0.122
1993	-1.515
1994	-0.039
1995	-0.283
1996	-2.49
1997	-0.335
1998	3.989
1999	2.482
2000	0.951
2001	2.148
2002	1.451
2003	0.321
2004	0.53
2005	2.042
2006	3.13
2007	1.632

2008 -1.173

## West North Central [2.5x3.5-degree box]

year	annual anomaly (deg F)
1901	0.176
1902	-1.445
1903	-2.031
1904	-1.265
1905	-1.6
1906	-0.859
1907	-2.157
1908	-0.431
1909	-2.218
1910	0.688
1911	-1.864
1912	-2.495
1913	-1.315
1914	-0.271
1915	-1.329
1916	-3.621
1917	-3.087
1918	-0.611
1919	-1.331
1920	-1.258
1921	1.328
1922	-1.497
1923	-0.565
1924	-2.481
1925	0.124
1926	0.295
1927	-2.278
1928	-0.383
1929	-2.752
1930	-0.049
1931	2.364
1932	-1.326
1933	0.882

1934	3.087
1935	-0.663
1936	-0.957
1937	-1.525
1938	0.994
1939	1.594
1940	0.366
1941	0.991
1942	-0.669
1943	-0.381
1944	-0.75
1945	-1.348
1946	0.607
1947	-0.542
1948	-0.943
1949	-1.225
1950	-3.2
1951	-3.788
1952	-0.337
1953	1.606
1954	0.888
1955	-1.687
1956	-0.417
1957	-0.717
1958	0.401
1959	-0.962
1960	-0.891
1961	0.204
1962	-0.398
1963	1.219
1964	-0.869
1965	-1.723
1966	-1.103
1967	-0.565
1968	-1.021
1969	-1.396
1970	-1.253

1971	-1.13
1972	-1.975
1973	0.049
1974	0.353
1975	-1.622
1976	0.647
1977	0.479
1978	-2.544
1979	-2.022
1980	0.645
1981	2.297
1982	-2.273
1983	-0.14
1984	-0.277
1985	-2.273
1986	1.18
1987	2.771
1988	1.726
1989	-0.775
1990	1.325
1991	1.259
1992	1.049
1993	-2.42
1994	0.678
1995	-0.091
1996	-2.364
1997	0.143
1998	2.102
1999	2.397
2000	0.805
2001	1.646
2002	0.327
2003	1.19
2004	0.813
2005	1.599
2006	2.603
2007	1.756

2008 -0.814

Southwest (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	0.064
1902	-0.445
1903	-1.709
1904	-0.411
1905	-1.461
1906	-1.079
1907	-0.118
1908	-1.589
1909	-1.35
1910	1.015
1911	-0.951
1912	-2.867
1913	-2.447
1914	-0.569
1915	-1.874
1916	-1.334
1917	-1.712
1918	-1.179
1919	-1.876
1920	-1.79
1921	0.576
1922	-1.019
1923	-1.734
1924	-1.735
1925	-0.626
1926	-0.311
1927	-0.186
1928	-0.634
1929	-1.798
1930	-1.51
1931	-0.592
1932	-1.739
1933	-0.518

1934	2.426
1935	-0.336
1936	0.29
1937	-0.756
1938	-0.233
1939	-0.112
1940	0.479
1941	-1.064
1942	-0.933
1943	0.599
1944	-1.529
1945	-0.946
1946	0.086
1947	-0.524
1948	-1.175
1949	-1.355
1950	0.523
1951	-0.969
1952	-0.812
1953	0.139
1954	1.63
1955	-1.086
1956	-0.002
1957	-0.338
1958	0.509
1959	0.068
1960	-0.53
1961	-0.834
1962	-0.056
1963	0.396
1964	-1.605
1965	-0.917
1966	-0.369
1967	-0.432
1968	-1.316
1969	-0.13
1970	-0.74

1971	-1.187
1972	-0.235
1973	-1.6
1974	-0.389
1975	-1.82
1976	-0.79
1977	0.741
1978	-0.185
1979	-1.285
1980	0.454
1981	1.575
1982	-1.047
1983	-0.53
1984	-1.082
1985	-0.644
1986	0.905
1987	-0.312
1988	-0.02
1989	0.592
1990	0.28
1991	-0.541
1992	-0.116
1993	-0.611
1994	1.276
1995	1.063
1996	1.451
1997	0.111
1998	0.619
1999	1.28
2000	2.048
2001	1.571
2002	1.167
2003	2.296
2004	0.664
2005	1.544
2006	1.552
2007	1.461

2008 0.458

West      (anomaly with respect to 1971-2000 mean)  
annual  
anomaly  
year      (deg F)

1901	0.017
1902	-0.854
1903	-0.979
1904	0.259
1905	-0.509
1906	-0.181
1907	-0.699
1908	-1.299
1909	-1.307
1910	0.23
1911	-2.458
1912	-2.271
1913	-1.677
1914	-0.405
1915	-0.906
1916	-2.505
1917	-1.223
1918	-1.027
1919	-1.27
1920	-1.694
1921	-0.086
1922	-1.882
1923	-1.656
1924	-0.955
1925	-0.468
1926	1.005
1927	-0.721
1928	-0.085
1929	-0.699
1930	-1.082
1931	0.229
1932	-1.39
1933	-1.277

1934	2.014
1935	-1.102
1936	0.375
1937	-1.14
1938	-0.958
1939	0.218
1940	1.018
1941	-0.848
1942	-1.109
1943	0.059
1944	-2.071
1945	-1.16
1946	-1.11
1947	-0.374
1948	-2.159
1949	-1.863
1950	0.337
1951	-0.732
1952	-1.184
1953	-0.514
1954	-0.173
1955	-1.865
1956	-1.008
1957	-0.85
1958	1.085
1959	0.783
1960	0.141
1961	-0.055
1962	-0.553
1963	-0.702
1964	-1.532
1965	-1.341
1966	0.06
1967	-0.346
1968	-0.283
1969	-0.247
1970	-0.237

1971	-1.542
1972	-0.575
1973	-0.6
1974	-0.105
1975	-1.741
1976	-0.52
1977	0.235
1978	-0.273
1979	-0.09
1980	0.21
1981	1.557
1982	-1.764
1983	-0.309
1984	-0.308
1985	-0.997
1986	1.137
1987	0.352
1988	0.641
1989	-0.072
1990	-0.092
1991	-0.03
1992	1.302
1993	-0.697
1994	0.299
1995	1.047
1996	1.558
1997	1.021
1998	-0.773
1999	0.12
2000	1.011
2001	1.191
2002	0.718
2003	1.723
2004	0.904
2005	0.567
2006	0.678
2007	1.08

2008 0.67

Northwest (anomaly with respect to 1971-2000 mean)

year	annual anomaly (deg F)
1901	-0.359
1902	-1.05
1903	-1.49
1904	0.321
1905	-0.61
1906	0.047
1907	-0.586
1908	-0.766
1909	-1.515
1910	-0.235
1911	-2.165
1912	-1.634
1913	-1.915
1914	-0.098
1915	0.163
1916	-2.892
1917	-1.108
1918	0.097
1919	-1.442
1920	-1.33
1921	-0.265
1922	-2.196
1923	-0.724
1924	-0.956
1925	0.937
1926	1.278
1927	-1.047
1928	-0.407
1929	-1.997
1930	-1.46
1931	-0.176
1932	-1.449
1933	-0.793

1934	3.197
1935	-1.202
1936	-0.173
1937	-1.008
1938	0.387
1939	1.122
1940	1.762
1941	1.009
1942	-0.644
1943	-0.657
1944	-0.801
1945	-0.42
1946	-0.568
1947	0.317
1948	-2.029
1949	-1.388
1950	-1.016
1951	-1.086
1952	-0.778
1953	0.763
1954	-0.63
1955	-2.641
1956	-1.104
1957	-0.997
1958	1.949
1959	-0.43
1960	-0.675
1961	0.522
1962	-0.535
1963	0.159
1964	-1.987
1965	-0.154
1966	0.411
1967	0.854
1968	-0.209
1969	-0.637
1970	-0.453

1971	-1.201
1972	-0.914
1973	0.097
1974	0.102
1975	-1.424
1976	-0.764
1977	-0.159
1978	-0.534
1979	-0.293
1980	-0.088
1981	0.995
1982	-1.506
1983	-0.008
1984	-1.62
1985	-2.923
1986	0.967
1987	1.455
1988	0.839
1989	-0.4
1990	0.625
1991	0.426
1992	2.127
1993	-1.664
1994	1.171
1995	1.151
1996	0.161
1997	0.813
1998	1.631
1999	0.531
2000	0.406
2001	0.718
2002	0.417
2003	2.217
2004	1.445
2005	0.595
2006	1.135
2007	0.946

2008 -0.566

Alaska (anomaly with respect to 1971-2000 mean)  
annual  
anomaly  
year (deg F)

1918	-2.826
1919	-1.006
1920	-2.254
1921	-1.294
1922	-1.271
1923	0.971
1924	-1.272
1925	-0.752
1926	3.976
1927	-2.291
1928	0.623
1929	1.094
1930	-1.295
1931	0.579
1932	-2.574
1933	-3.497
1934	0.483
1935	-0.566
1936	0.585
1937	0.847
1938	0.816
1939	-1.528
1940	3.036
1941	1.087
1942	1.192
1943	0.986
1944	1.228
1945	-0.87
1946	-1.934
1947	-0.131
1948	-2.924
1949	-1.104
1950	-1.028

1951	-1.566
1952	-0.929
1953	-0.117
1954	-1.774
1955	-3.052
1956	-4.704
1957	1.933
1958	0.572
1959	-1.668
1960	0.446
1961	-2.803
1962	0.152
1963	0.14
1964	-2.953
1965	-1.756
1966	-2.803
1967	0.426
1968	-0.954
1969	0.537
1970	-0.792
1971	-4.004
1972	-2.945
1973	-1.901
1974	-2.216
1975	-3.158
1976	-0.3
1977	0.876
1978	2.66
1979	0.955
1980	0.138
1981	3.019
1982	-1.3
1983	0.687
1984	-0.462
1985	-0.16
1986	0.866
1987	1.622

1988	1.131
1989	0.068
1990	-0.975
1991	0.69
1992	-1.394
1993	3.372
1994	-0.056
1995	1.279
1996	-1.528
1997	1.831
1998	1.669
1999	-2.374
2000	1.909
2001	1.162
2002	3.318
2003	2.527
2004	2.716
2005	2.706
2006	-0.257
2007	1.291
2008	-1.415

Hawaii (anomaly with respect to 1971-2000 mean)  
annual  
anomaly (deg

year	F)
1905	-1.09
1906	-0.421
1907	-0.341
1908	-1.192
1909	-1.217
1910	-1.404
1911	-0.981
1912	-0.548
1913	-0.063
1914	-0.474
1915	-0.328
1916	-0.573
1917	-0.468
1918	-0.341
1919	-0.637
1920	-0.346
1921	-0.43
1922	-0.681
1923	-0.451
1924	-0.737
1925	-0.396
1926	0.235
1927	0.155
1928	-0.446
1929	0.011
1930	-0.038
1931	-0.368
1932	-0.798
1933	-1.673
1934	0.003
1935	-0.259
1936	-0.483
1937	-0.569

1938	0.254
1939	-1.015
1940	0.886
1941	0.057
1942	0.045
1943	0.034
1944	-0.549
1945	0.213
1946	-0.201
1947	-0.422
1948	-0.82
1949	-1.469
1950	-0.629
1951	-0.292
1952	-1.191
1953	-0.714
1954	-0.388
1955	-1.943
1956	-0.594
1957	-0.503
1958	-0.694
1959	0.239
1960	-0.121
1961	0.096
1962	-0.417
1963	0.135
1964	-0.273
1965	-0.612
1966	-0.112
1967	0.404
1968	1.096
1969	-0.216
1970	-0.19
1971	-0.652
1972	-0.601
1973	-0.606
1974	0.335

1975	-1.089
1976	-0.918
1977	0.161
1978	0.106
1979	-0.056
1980	0.652
1981	0.606
1982	0.137
1983	-0.428
1984	0.635
1985	-0.382
1986	1.033
1987	0.104
1988	0.633
1989	-0.148
1990	0.088
1991	0.248
1992	0.576
1993	-0.309
1994	0.174
1995	0.433
1996	0.699
1997	0.313
1998	-0.691
1999	-0.885
2000	-0.166
2001	0.026
2002	0.151
2003	0.458
2004	0.598
2005	0.048
2006	-0.124
2007	0.068
2008	-0.358